



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

SW

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,444	11/20/2003	Gi Hyeong Do	9988.075.00-US	6634
30827	7590	12/13/2004	EXAMINER	
MCKENNA LONG & ALDRIDGE LLP			GRAVINI, STEPHEN MICHAEL	
1900 K STREET, NW			ART UNIT	
WASHINGTON, DC 20006			PAPER NUMBER	

3749

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/716,444

Applicant(s)

DO, GI HYEONG

Examiner

Stephen Gravini

Art Unit

3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 10-22-04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20041022.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Chbat et al. (US 6,122,840). Chbat is considered to disclose the claimed dryer comprising:

a temperature sensor **42** for sensing an internal temperature of the laundry dryer and outputting a sensed temperature signal indicative of the internal temperature; and

a microcomputer **46** for controlling a plurality of drivers associated with a heater, motor and exhaust fan according to the sensed temperature signal from said temperature sensor wherein said microcomputer controls the plurality of drivers **48** by comparing the sensed internal temperature with a predetermined temperature value, wherein said microcomputer stops the heater, thereby initiating a cooling procedure.

Claims 9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Sung (US 5,245,764). Sung is considered to disclose the claimed method comprising:

performing a cooling procedure (please see column 6 lines 1-9);

sensing an internal temperature of the laundry dryer during said cooling procedure step (please see column 6 lines 18-22);

comparing the sensed internal temperature with a predetermined temperature value (please see column 6 lines 37-51); and

stopping said cooling procedure step if the sensed temperature is lower than a predetermined temperature (please see column 6 lines 22-36) optionally

performing a drying procedure; and
sensing an internal temperature of the laundry drier during said drying procedure
performing step (please see column 4 line 66).

Claim Rejections - 35 USC § 103

Claims 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chbat in view of Sung. Chbat is considered to disclose the claimed invention, as discussed above in the anticipatory rejection, except for the claimed predetermined temperature value, cooling procedure, stopped/driven step, internal temperature signal, and driven heater/motor/exhaust fan step. First, it would have been an obvious matter of design choice to claim the predetermined temperature value, since that value has not been shown to have any patentable advantage over the temperature values found in the prior art of record. Second, it considered that Sung, another dryer, discloses the claimed cooling procedure at column 6 line 6, stopped/driven step at column 7 line 17, internal temperature signal at column 7 line 37, and driven heater/motor/exhaust fan step at column 4 line 56. It would have been obvious to one skilled in the art to combine the teachings of Chbat, with the teachings of cooling procedure, stopped/driven step, internal temperature signal, and driven heater/motor/exhaust fan step, considered to be found in Sung for the purpose of allowing forced cool air circulation for drying clothes without the excessive heat that would cause damage to desired laundry cleanings.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sung. Sung is considered to disclose the claimed invention, as discussed above in the anticipatory rejection, except for the claimed predetermined temperature value. It would

Art Unit: 3749

have been an obvious matter of design choice to claim the predetermined temperature value, since that value has not been shown to have any patentable advantage over the temperature values found in the prior art of record.

Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sung in view of Chbat. Sung is considered to disclose the claimed invention, as discussed above in the anticipatory rejection, except for the claimed heater/motor/exhaust fan internal temperature signal associated drivers for stopping and/or starting. Chbat, another dryer, discloses a heater/motor/exhaust fan internal temperature signal associated drivers for stopping and/or starting at column 4 lines 11-42. It would have been obvious to one skilled in the art to combine the teachings of Sung, with the heater/motor/exhaust fan internal temperature signal associated drivers for stopping and/or starting, considered to be found in Chbat for the purpose of allowing forced cool air circulation for drying clothes without the excessive heat that would cause damage to desired laundry cleanings.

Response to Arguments

Applicant's arguments filed October 22, 2004 have been fully considered but they are not persuasive.

anticipation

Applicant argues that primary reference Chbat does not disclose the claimed invention because the amended feature of stopping the heater by the microcomputer thereby initiating a cooling process. The last sentence of the Chbat brief summary discloses that a dryer is stopped based on a fuzzy logic control system. The claimed

Art Unit: 3749

microcomputer is anticipated by the disclosed fuzzy logic control system because both send a signal to control a dryer. In both the claimed invention and the primary reference disclosure, when a dryer is stopped, cooling is initiated due to ambient temperatures are normally lower than dryer temperatures. Therefore it is considered that Chbat implicitly disclosed the claimed invention because both the argued claimed feature disclosed brief summary perform the same function. Because the dependent claimed features are argued to be patentable based on the independently claimed feature argument, those claims are also considered non patentable under Chbat. The rejection is considered proper and maintained.

Applicant further argues that primary reference Sung does not disclose the claimed invention because the feature of stopping the cooling step based on a sensed temperature as compared with a predetermined value. The sixth column of the Sung expressly discloses a sensed internal and room (predetermined) temperature to implicitly secure operation of the dryer (please see column 5). In both the claimed invention and the primary reference disclosure, when a dryer cooling is stopped due to ambient temperatures are normally different from dryer temperatures. Therefore it is considered that Sung implicitly disclosed the claimed invention because both the argued claimed feature disclosed brief summary perform the same function. Because the dependent claimed features are argued to be patentable based on the independently claimed feature argument, those claims are also considered non patentable under Sung. The rejection is considered proper and maintained.

obviousness

It is argued that since the anticipatory rejections should be withdrawn, so should the obviousness rejections. However the anticipatory rejections are considered proper, such that the obviousness rejections are maintained.

Conclusion

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Gravini whose telephone number is 703 308 7570. The examiner can normally be reached on normal weekday business hours (east coast time).

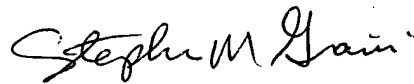
Art Unit: 3749

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira S. Lazarus can be reached on 703 308 1935. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

smg

December 3, 2004

A handwritten signature in cursive script, appearing to read "Stephen M. Gaim".